

Amendments to the Specification

Kindly amend paragraph 0001 of the specification as follows:

This application is related to co-pending utility application entitled "System and Method for Selectively Caching Domain Name System Information on a Network Gateway," Application Serial No. 10/080,671 [[]] (~~to be assigned~~), ~~Attorney Docket No. 1875.1990000~~, filed concurrently herewith and incorporated by reference herein in its entirety.

Kindly amend paragraph 0038 of the specification as follows:

The network gateway 204 comprises an interface between the CPE devices 202, 212 and 214 and the IP network 206. In part, the network gateway 204 facilitates the bi-directional transfer of IP packets between the CPE devices 202, 212 and 214 and the IP network 206 by performing essential physical and link layer conversions between CPE-side and network-side transmission protocols. In embodiments, the network gateway 204 may comprise a cable modem, analog modem, DSL modem, ISDN adapter, Ethernet card, or any other interface that facilitates the transmission of IP packets between a CPE and an IP network. In accordance with embodiments of the present invention, the network gateway 204 further comprises a DNS cache 216 for caching DNS information that is relevant to applications running on one or more of the attached CPE devices 202, 212, and 214, as will be described in more detail below.

Kindly amend paragraph 0040 of the specification as follows:

The IP network 206 of the example operating environment 300 includes a hybrid fiber coaxial (HFC) network 304, a cable headend 306, and a wide area network 310.

The cable headend 306 includes a cable modem termination system (CMTS) 308 that receives packets sent from the cable modem 302 over the HFC network 304. The cable headend 304 306 operates to transfer IP packets between the HFC network 304 and the wide area network 310, thus enabling communication between the computer system 202a and other network devices, such as the DHCP server 208 and the plurality of domain name servers 210a through 210n. In an embodiment, IP packets are transferred between the cable modem 302 and the CMTS 308 in accordance with standard DOCSIS or EuroDOCSIS protocols for cable modem systems, which are well-known in the art.

Kindly amend paragraph 0054 of the specification as follows:

As shown in FIG. 5, the volatile memory 506 is coupled to the internal bus 514 of the integrated chip 502 via a volatile memory interface 522 over an external bus 526. Although the volatile memory 506 is shown as an external component with respect to the integrated circuit 502, in an alternate embodiment, the volatile memory 506 may comprise an internal component of the integrated circuit 502. In an embodiment, the volatile memory 506 comprises an SDRAM.

Kindly amend paragraph 0057 of the specification as follows:

In accordance with embodiments of the present invention, a network gateway, such as the network gateway 204 of FIG. 2, maintains a DNS cache for the temporary storage of domain names and corresponding IP addresses. The DNS cache is utilized by the network gateway to resolve domain name queries generated by application programs running on one or more attached CPE devices, such as the CPE devices 202, 212 and 214 of FIG. 2, in a manner that is transparent to the CPE devices and that does not expend

CPE resources. By maintaining a centralized DNS cache on the network gateway, embodiments of the present invention are capable of efficiently caching the DNS information that is most relevant to CPE devices attached to the network gateway ~~104~~
204. Furthermore, by maintaining the DNS cache on the network gateway 204, embodiments of the present invention permit domain name resolution to occur without requiring access to a domain name server over an IP network.

Kindly amend paragraph 0086 of the specification as follows:

Upon receiving the domain name information from the computer system 202a, the network gateway device 204a generates one or more DNS queries to resolve the identified domain names, as shown at step 808. The DNS queries are preferably formatted as iterative, as opposed to recursive, resolution requests, so that prolonged network searching may be avoided. In an embodiment, these DNS queries are formatted in accordance with the example DNS message format 700 of FIG. 7A.